

# A Study on Digital Financial Literacy: A precedent for improved Financial Literacy and Financial Inclusion.

Riya Raju George

Guest Lecturer, Dept. of Commerce

Catholicate College,

Pathanamthitta, Kerala.

## ABSTRACT

Digital financial literacy has become the present need of India. There is growing awareness in this direction since the onset of demonetisation. In an era where computers communicate, take orders, move and do about almost all activities that were previously the domain of a live human being, it is necessary that our country take calculated steps to advance towards this mission. A digital and cashless economy is the current mission. Digital literacy is thus, the ability to make informed judgement and take effective decisions regarding the use and management of money, in a digital mode. There has been a rapid surge in online traffic and usage of web based and mobile application based portals- both financial or other wise, but this is limited to urban or metropolitan cities. India's national divide is loud and clear in this aspect. During the phase of demonetisation, dozens of hundreds of people around the nation crowded ATMs and the bank branches, hence proving that India has a long way to go before it achieves a complete state of digitalization. This study examines the rate of digital financial literacy and how it acts as a necessary primary step towards a much enhanced financial literacy and financial inclusion. This study also examines various demographic variables and their effects on financial and digital financial literacy and factors that affect or hinder the use of digital financial products. A sample of respondents using convenience sampling technique were collected for the purpose of this study. That is random sampling technique was used for the study. The findings suggest that external forces such as demonetisation in fact affect digital financial literacy and government and fintech companies need to take measured steps to induce the people into using digital facilities and explain the added advantage of ensuring user friendly technology and provision of rewards.

**Keywords:** *digital financial literacy, cashless economy, online and web based, mobile applications, demographic variables, financial literacy, financial inclusion.*

## INTRODUCTION

As of present the influence of social media, technology and online resources are enormous and in this pre-tense digital literacy is gaining popularity as a source of life long learning and skill development. Digital skills are necessary in the light of the present digital revolution all around the globe, making it imperative to empower the citizens of the country to move towards a cashless economy and join the revolution . and financial literacy is a necessity for financial inclusion and what better way to speed up the process of financial literacy than digital financial literacy.

Brick and mortar institutions which are paper based are still widely accepted but it is only a matter of time before they are eclipsed by financial technology or digitalization. digital financial literacy can be viewed from two different perspectives- at the individual level, a high degree of financial literacy allows the

consumer to access financial opportunities through digital technologies; at the national level, a financially literate public engages in economic activity that creates collective stability and prosperity. Thus, digital literacy becomes of paramount importance.

Most of the individuals are aware of bank loans, but less aware about other financial products. And overall possesses low financial skills which reflected in deficient record keeping, poor cash management, improper saving habits, less awareness on financial projects (Kamal Gupta 2014). adequate financial literacy is necessary for a developing country like india. with the population size she holds, it becomes rather a survival need to ensure that her citizens are educated, trained and possess the requisite skills to manage money and indulge in healthy saving habits.

Visa financial literacy survey(2014), depicts Indians as lest financially literate people across the globe with youngsters and women struggling with their financial knowledge. The gender bias, income bias etc. Divide and demarcate the country into two extreme poles, and it is high time to end this divide.the rural areas where the lack of digital literacy creates several practical and social barriers to development. Also, one of the biggest shortcomings is that, India continues to suffer from a perverse colonial snobbery making it hard for the common man to follow. Generation gap being another one of the prominent factors that makes penetration more difficult. Another point was digital patriarchy. The prevailing gender bias in the rural society, which assumes women to be incapable of using the technology efficiently. In thye face of all these difficulties india is still advancing fast towards its mission of total digitalization accentuating its importance and relevance even more.

## REVIEW OF LITERATURE

Shachi Prakash (2012), in his article stresses on the importance of financial literacy or education and counselling regarding matters related to credit in the phase of rising cedit defaults, and faulty financial inclusion and tries to find reasons as to why bank initiatives have remained as mere initiatives and were not implemented to this cause yet.

Puneet Bhushan (2013) through his study concluded factors such as education, gender, income and other demographic factors go a long way in influencing financial literacy of a nation or community and that the overall literacy rate is unsatisfactory.

Lavanya Rekha Bahadur (2015), basis her study on the twin pillars of financial literacy and financial inclusion and the importance of beginning financial education at school level and working the way up.

## NEED OF THE STUDY

In the present era, though brick and mortar institutions still play an important role ,the shift in global technology has made it imperative for the country to enhance its competitive edge. Digital financial literacy becomes necessary to be acknowledged from the perspectives of both individual an national economy. From the perspective of an individual it necessitates the need to acquire advanced knowldge for enabling proper usage of digital financial product and on a national point of view, the improved technical literacy can contribute to upliftment of the GDP, and effeciency. Digital financial literacy can act as a big leap frog to overcome the national divide between the rich and the poor, gender bias, and generation gap.

## OBJECTIVES OF THE STUDY

### PRIMARY OBJECTIVE:

To study the rate of digital literacy and how it acts as a necessity for financial literacy and inclusion.

### SECONDARY OBJECTIVES:

- To understand different factors that affect/hinder active use of digital financial facilities.
- To analyse the relation between different demographic factors and financial and digital financial literacy
- To suggest ways to improve financial and digital financial literacy and thereby financial inclusion.

### RESEARCH METHODOLOGY:

It is an empirical study which is based on survey method. Primary data was collected using a structured questionnaire with two parts - part A enquiring about the respondents demographic informations and part B with all the other relevant questions seeking information regarding their awareness of different financial products from 162 respondents. The acquired data was analysed using:

#### RESEARCH DESIGN:

The research design is an arrangement of how data is collected and analysed. It is a conceptual structure. The research design is descriptive in nature.

#### SAMPLING TECHNIQUE:

The sampling technique used to get the response is convenience sampling because of their convenient accessibility and proximity to the researcher.

#### SAMPLE SIZE:

The sample size taken is 162 respondents.

### SOURCES OF DATA:

**PRIMARY DATA:** The primary data for this study is collected through a structured questionnaire.

**SECONDARY DATA:** Secondary data are those data which have been already collected or published for the purpose other than specific research need at hand. The secondary information is collected from:

- Journals
- Magazines
- Websites

## DATA ANALYSIS:

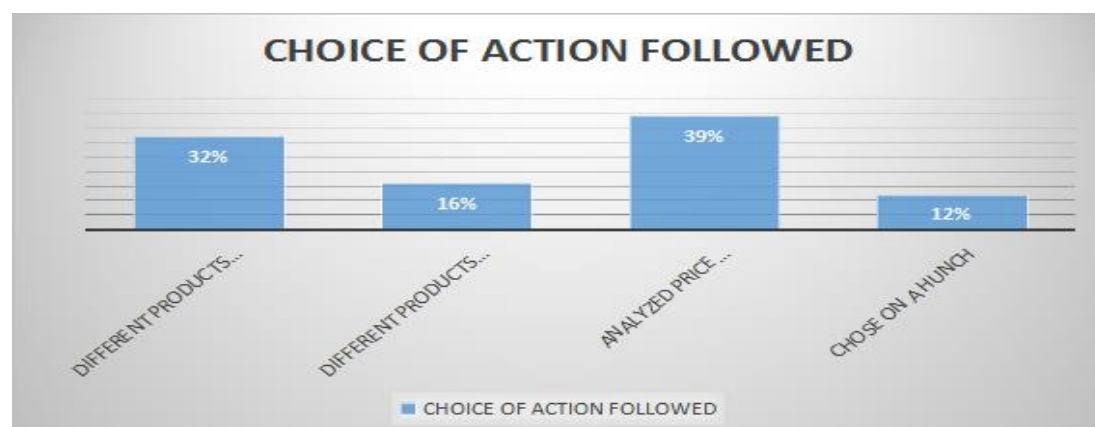
- ◆  Percentage analysis method
- ◆  Ordinal mean test
- ◆  SPSS (chi-square, multiple responses variance)

## ANALYSIS AND INTERPRETATION

**TABLE 1:** CHOICE OF ACTION BY RESPONDENTS BEFORE CONSIDERING INVESTMENT OPTIONS.

STATEMENT	NO. OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Considered different financial products of different firms	53	33
Considered products of one firm	26	16
Analysed price movement of products and its risks	63	39
did not consider any other products and chose on a hunch	20	12
TOTAL	162	100

**FIGURE:** CHOICE OF ACTION BY RESPONDENTS BEFORE CONSIDERING INVESTMENT OPTIONS.



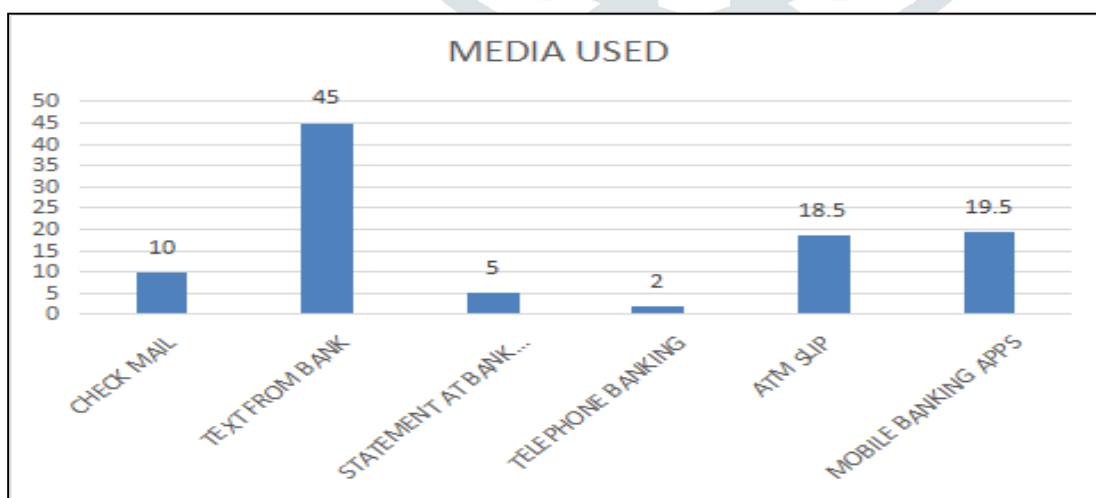
Source: Primary Data

**INTERPRETATION:**

It can be analysed from the above table and figure that majority(39%) of the respondents ensure to analyse the price movements in the market and the related risk of different avenues of investment before making an investment, while a small number of respondents say they choose on a hunch.

**TABLE 2 :** MEDIA MOST USED TO CHECK BANK BALANCE AND CURRENT STATUS OF INVESTMENTS

MEDIA	NO. OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Check mail	16	10
Receive text message from bank	73	45
Ask for statement at the bank branch	8	5
Undertake telephone banking	3	2
Print slip at the ATM	30	18.5
Check mobile banking app	32	19.5
TOTAL	162	100

**FIGURE 2:** MEDIA MOST USED TO CHECK BANK BALANCE AND CURRENT STATUS OF INVESTMENT

Source: Primary data

**INTERPRETATION:**

From the above table and figure is can be inferred that a major portion of the respondents, which is 45% rely on text messages from their bank and only 19.5% of them tend to use mobile banking applications. An even lower percentage resort to checking their mail.

**TABLE 3:** TO FIND OUT THE PERFORMANCE OF RESPONDENTS WITH REGARDS FINANCIAL LITERACY QUIZ

QUESTION	NO. OF CORRECT ANSWERS	NO. OF WRONG ANSWERS	% OF CORRECT ANSWER
Suppose an amount of INR1000 is put in a saving bank account at an interest rate of 12%, what will be the amount at the end of the year.	138	24	85
Suppose an amount of INR1000 is put into a saving bank account at the rate of 10% compound interest, what will be the amount at the end of the 5 <sup>th</sup> year?	78	84	48
If interest rate is 6% and inflation rate at 8%, money in your account at the end of the year could fetch	89	73	55
Is it less likely to lose all your money if you invest them in different avenues?	113	49	70
True or false statement regarding bad loan payment and credibility	146	16	90
To find out the false statement with relation to UPI	52	110	32
What are some facilities provided by internet banking	97	65	60

Source: Primary Data

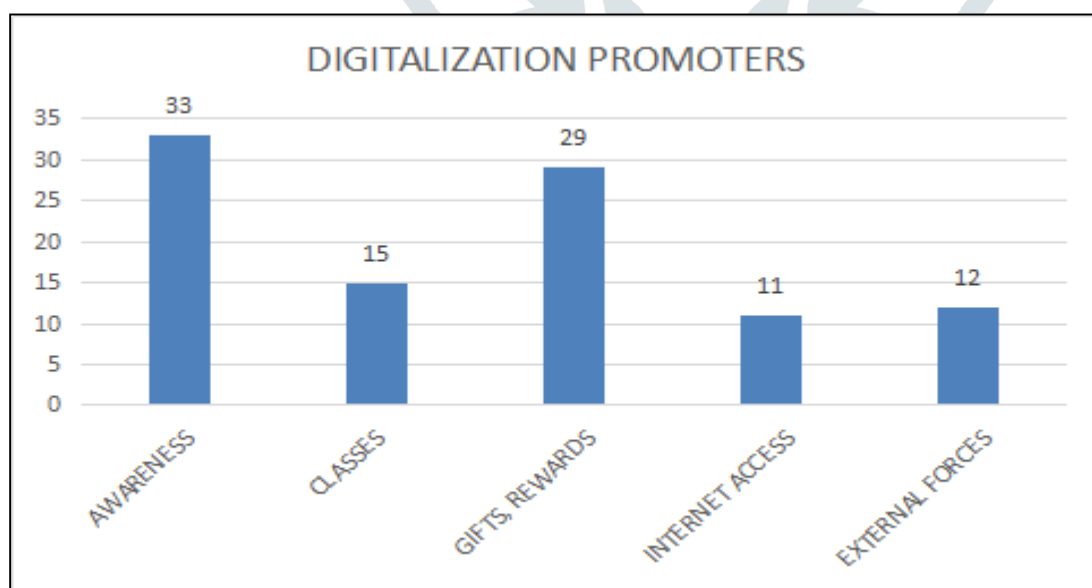
### **INTERPRETATION:**

From the above table we can understand that literacy level of the respondents on the different aspects of finance is marginally above average, that is on the basis of the average of the correct answers, 63%. The answers to questions on simple interest rate, diversification of risk, and loan payment are correct by majority. But most of the respondent have given wrong answers with regards to compound interest rate, inflation rate, UPI, and banking facilities. It may be inferred that most of the respondents are aware of basic financial facts but not aware technical financial aspects or internet banking.

**TABLE 4:** PROVISIONS OR REQUIREMENTS THAT INDUCE RESPONDENTS TO INCREASE USE OF DIGITAL FINANCIAL FACILITIES

PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
Increased digital awareness	53	33
Organised classes or sessions by government or institutions	25	15
Bonus points, gifts or rewards on use or transactions through electronic media	47	29
Unhindered access and reasonable internet charges	18	11
External forces such as demonetisation	19	12
TOTAL	162	100

Source: Primary Data

**FIGURE 4:** PROVISIONS OR REQUIREMENTS THAT INDUCE RESPONDENTS TO INCREASE USE OF DIGITAL FINANCIAL FACILITIES**INTERPRETATION:**

From the above table and figure we can say that most respondents (41%) suggested that the biggest motivator of digitalization is in fact awareness about the same, followed by provisions of bonus points, gifts or rewards on digital transactions.

**TABLE 5-8:** RATE FACTORS THAT ENCOURAGE USE OF INTERNET OR MOBILE BANKING AND ONLINE TRANSACTION (1 BEING HIGHEST RANK AND 3 LEAST)

#### CONVENIENCE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NOT SELECTED	37	22.8	22.8	22.8
	SELECTED	125	77.2	77.2	100.0
	Total	162	100.0	100.0	

#### SPEED

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NOT SELECTED	32	19.8	19.8	19.8
	SELECTED	130	80.2	80.2	100.0
	Total	162	100.0	100.0	

#### LOW SERVICE CHARGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NOT SELECTED	69	42.6	42.6	42.6
	SLECTED	93	57.4	57.4	100.0
	Total	162	100.0	100.0	

#### \$FACTORS Frequencies

		Responses		Percent of Cases
		N	Percent	
\$FACTORS <sup>a</sup>	CONVENIENCE	125	35.9%	78.6%



SPEED	130	37.4%	81.8%
LOW SERVICE CHARGE	93	26.7%	58.5%
Total	348	100.0%	218.9%

a. Dichotomy group tabulated at value 1.

### **INTERPRATATION:**

From the above tables it can be inferred that most of the respondents tend to use internet banking and mobile banking application because of its speed, as followed by the convenience in using it. Low service charge is considered as the least important of the three factors.

**TABLE 9-12:** RATE FACTORS THAT DISCOURAGE USE OF INTERNET OR MOBILE BANKING AND ONLINE TRANSACTION

#### **security breaches**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NOT SELECTED	29	17.9	17.9	17.9
SELECTED	133	82.1	82.1	100.0
Total	162	100.0	100.0	

#### **Technical knowledge**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NOT SELECTED	73	45.1	45.1	45.1
SELECTED	89	54.9	54.9	100.0
Total	162	100.0	100.0	

#### **Additional online charges**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NOT SELECTED	57	35.2	35.2	35.2
SELECTED	105	64.8	64.8	100.0
Total	162	100.0	100.0	

**\$FACTORS Frequencies**

		Responses		Percent of Cases
		N	Percent	
\$FACTORS <sup>a</sup>	security breaches	133	40.7%	82.6%
	tech. knowledge	89	27.2%	55.3%
	add charges	105	32.1%	65.2%
	Total	327	100.0%	203.1%

a. Dichotomy group tabulated at value 1.

**INTERPRETATION:**

From the above tables it can be inferred that most of the respondents fear security breaches and phishing due to which they hold back from internet and mobile banking or online transaction, followed by additional online charges and then technical knowledge about internet.

**TABLE 13-15: AWARENESS REGARDING TAX SHELTERED INVESTMENT SCHEMES**

H<sub>0</sub>: There is no relationship between gender and awareness of tax sheltered investment schemes

H<sub>1</sub>: There is relationship between gender and awareness of tax sheltered investment schemes.

GENDER		C.V.	DOF	P Value	Significant status
Male	86	0.384	1	0.535	N.S*
Female	76				

\*Not Significant

**INTERPRETATION:**

Significance level=0.05

Since P value (0.535) is more than  $\alpha$  value (0.05), so result is statistically not significant.

Hence, we fail to reject null hypothesis. Therefore we conclude that there is no relationship between gender and awareness of tax sheltered investment schemes.

H<sub>0</sub>: There is no relationship between education and awareness of tax sheltered investment schemes.

H<sub>1</sub>: There is relationship between education and awareness of tax sheltered investment schemes.

EDUCATION		C.V.	DOF	P Value	Sig. status
primary	14	26.639	4	0.000	Sig
secondary	33				
Technical/vocational	22				
UG	63				
PG	30				

#### INTERPRETATION:

Significance level=0.05

Since P value (0.000) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between education and awareness of tax sheltered investment schemes.

H<sub>0</sub>: There is no relationship between income and awareness of tax sheltered investment schemes.

H<sub>1</sub>: There is relationship between income and awareness of tax sheltered investment schemes

INCOME		C.V.	DOF	P Value	Sig. status
- 25000	32	19.990	5	0.001	Sig.
25000-50000	35				
50000-75000	47				
75000-100000	22				
100000 & above	14				

**INTERPRETATION:**

Significance level=0.05

Since P value (0.001) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between income and awareness of tax sheltered investment schemes.

**TABLE 16-24: AWARENESS REGARDING CAPITAL MARKET INSTRUMENTS**

H<sub>0</sub>: There is no relationship between age and awareness of capital market instruments.

H<sub>1</sub>: There is relationship between age and awareness of capital market instruments.

AGE		C.V.	DOF	P Value	Sig, status
18-28	36	17.057	3	0.001	Sig.
29-39	38				
40-60	46				
60 & above	42				

**INTERPRETATION:**

Significance level=0.05

Since P value (0.001) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between age and awareness of capital market instruments.

H<sub>0</sub>: There is no relationship between income and awareness of capital market instruments.

H<sub>1</sub>: There is relationship between income and awareness of capital market instruments.

INCOME		C.V.	DOF	P Value	Sig. status
- 25000	32	10.734	5	0.057	N.S.
25000-50000	35				
50000-75000	47				
75000-100000	22				
100000 & above	14				

### INTERPRETATION:

Significance level=0.05

Since P value (0.057) is more than  $\alpha$  value (0.05), so result is statistically not significant.

Hence, we fail to reject null hypothesis. Therefore we conclude that there is no relationship between income and awareness of capital market instruments.

$H_0$ : There is no relationship between income and awareness of capital market instruments.

$H_1$ : There is relationship between income and awareness of capital market instruments

EDUCATION		C.V.	DOF	P Value	Sig. status
primary	14	20.131	4	0.000	Sig.
secondary	33				
Technical/vocational	22				
UG	63				
PG	30				

### INTERPRETATION:

Significance level=0.05

Since P value (0.000) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between education level and awareness of capital market instruments.

**TABLE NO 4.36-4.37: AWARENESS REGARDING PLASTIC MONEY**

H<sub>0</sub>: There is no relationship between age and awareness of plastic money.

H<sub>1</sub>: There is relationship between age and awareness of plastic money.

AGE		C.V.	DOF	P Value	Sig. status
18-28	36	18.922	3	0.000	Sig.
29-39	38				
40-60	46				
60 & above	42				

**INTERPRETATION:**

Significance level=0.05

Since P value (0.0000) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between age and awareness of plastic money.

H<sub>0</sub>: There is no relationship between area of residence and awareness of plastic money

H<sub>1</sub>: There is relationship between area of residence and awareness of plastic money.

AREA		C.V.	DOF	P Value	Sig. status
Rural	94	5.995	1	0.014	Sig.
Urban	68				

**INTERPRETATION:**

Significance level=0.05

Since P value (0.014) is more than  $\alpha$  value (0.05), so result is statistically not significant.

Hence, we fail to reject null hypothesis. Therefore we conclude that there is no relationship between area of residence and awareness of plastic money

**TABLE NO. 4.38-39: AWARENESS REGARDING MOBILE APPS AND WEBSITES**

H<sub>0</sub>: There is no relationship between gender and awareness of mobile applications and websites.

H<sub>1</sub>: There is relationship between gender and awareness of mobile applications and websites.

GENDER		C.V.	DOF	P Value	Sig. status
Male	86	6.609	1	0.010	Sig.
Female	76				

**INTERPRETATION:**

Significance level=0.05

Since P value (0.010) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between income and awareness of capital market instruments

H<sub>0</sub>: There is no relationship between age and awareness of plastic money

H<sub>1</sub>: There is relationship between age and awareness of plastic money.

AGE		C.V.	DOF	P Value	Sig. status
18-28	36	30.291	3	0.000	Sig.
29-39	38				
40-60	46				
60 & above	42				

## **INTERPRETATION:**

Significance level=0.05

Since P value (0.000) is less than  $\alpha$  value (0.05), so result is statistically significant.

Hence, we reject null hypothesis. Therefore we conclude that there is relationship between income and awareness of capital market instrument

## **FINDINGS:**

- The study showed that most of the respondents analyse the price movements in the market and the risk factors associated with it before making an investment decision. While a rather small portion, that makes up for 12% says they choose their investment avenues on a hunch.
- Vast majority of the respondents resort to receiving text messages from their banks to understand their bank balance which includes almost 45% of the respondents. Only approximately 20% depend on mobile banking applications and this is followed by the use of ATM slips to acquire information with regards to banking balance and the current state of investments. Telephone banking is the least preferred.
- Through the quiz conducted it was found that most respondents are equipped with the basic financial literacy that is a must. But questions related to compounding of interest, effects of inflation, UPI, and internet banking facilities are area where majority gave incorrect answers. This shows that most respondents are aware of immediate common financial aspects but lack knowledge in a slightly higher level of banking, economic and digital areas.
- Among the three main factors of internet and mobile banking, speed is the most attractive feature. Convenience comes in close touch at the second feature that induces respondents to go digital. Low charges came last but with only little more than average (58%).
- Respondents gives the reason of security breaches, data stealing and phishing to be the highest de-promoter of internet or mobile banking. Additional online charges and taxes are the second highest de-promoter which is followed by the need for technical knowledge required to handle data and transactions online and the excessive use of technical jargon. A lay person finds it hard to understand.
- This study throws light on the aspect of relationship between different demographic factors of the respondents and awareness of financial investment avenues and facilitators. It can be understood that age, education level attained and income level affect the awareness regarding tax saving instrument. But not gender. With increase in age, education level and income band awareness regarding tax saving investment schemes tend increase



- Awareness in case of plastic money is in relation with age and area of residence as the young and tech-savvy sections are more aware of the possibilities of plastic money and awareness regarding mobile application is in relation with gender and age of respondents, as male population generally are more technically advanced in the digital world

### **SUGGESTIONS:**

- More organised classes and sessions or workshops can be arranged to help spread digital awareness, especially among women, who are believed to educate the entire family. This can also be a method of women empowerment and support.
- It was inferred from the study that bonus points, gifts and rewards on transactions can act as a great incentive. This method can be adopted in a larger scale to induce the masses to convert to digitalization.
- Government and non-governmental institutions also play a major role in ushering in digital economy. People tend to have an eager need to catch up with the latest trend in the market, trends set by technology included.

### **CONCLUSION:**

Financial literacy is an imperative for financial inclusion. And digital financial literacy is more profound in an era where technology evolves on a daily basis. The weaker sections of society or technically disabled section continues to use conventional methods of banking and are reluctant to change. This hurdle can be over rode only through proper planned workshops and classes. Instead of expecting people to gradually take up technology the government and fin-tech groups can undertake measures to bring technology to the people.

The fear of mistrust of digital solutions and payment systems is part of the culture of the older generation, who consider that 'fintech is not for them, but for the young and tech savvy, thus missing out on technology that can open up a vistas of greater convenience to them.

Proper consumer education is key component which is critical in convincing target groups and largely unbanked section of society of the benefits of digital payments and winning their widespread. Digital finance is not the panacea for all ills in the financial inclusion of women. Encouraging women to take part in the digital world and providing training regarding the different aspects can help bring women a step closer to technology, especially in rural India.